said, but two favorite prescriptions. One of these prescriptions consisted of various mixtures of iodid of potash, the other of mercury with nauseous drugs as adjuvants. Back of his office, in what he called his surgery, were two famous barrels, one labeled "anti-syph" and the other "anti-scrof." "He kept office hours in the morning for private patients; in the afternoon for clinic patients. No charge was made for the examination of these clinic patients nor for the prescriptions; but at the end of the corridor, next the stairs, was Doctor Toland's drug store, and none but his pharmacist could decipher the scrawls of the squeaking quill pen. Some idea of the volume of the business done by this drug store could be obtained from a glimpse at the row of scrapbooks on the top shelf which encircled the room—a veritable frieze of huge books of prescriptions."[12] Copies of the 581,000 prescriptions which he had given out in only fifteen years made twenty-three volumes. These he explained to his students in his lectures, and the ingredients were alleged to be a great boon to his patients. Prescriptions were renewed at $5 a bottle, but he never gave out their contents except as a contribution to his students. "This drug store was a real gold mine. It is interesting to note, too, that Doctor Toland did an enormous mail-order business. People in the mines of California and Nevada found it easier to write an account of their symptoms to Doctor Toland than to make the long journey by stage to see him. Medicine was forwarded by express, and Wells, Fargo & Company collected the fee."[12] One of his former students, who later became a great physician and a professor, said to me: "When my first medical work called me to Crescent City and it became known that Toland was my teacher, my reputation was made. Men flocked to me, and when it was known that I held the secret of 'anti-syph' and 'anti-scrof' they went no further. Well supplied with these mixtures, and carrying in my saddlebags a few simple remedies and an abundance of bread pills, I defied disease, for I soon found that good nursing with a few bitters, and my one specific, were sufficient to carry through all but mortal diseases."

A KEEN DIAGNOSTICIAN

Toland's method of diagnosis was impressive. He rarely asked a patient a question, nor did he allow any detailing of symptoms. Like Sherlock Holmes, he read the face and studied the physical aspects, and from these guessed the disease—not always difficult, considering the lives his patients had led. From his evident recognition and successful treatment of one of the most common, protean, and deadly diseases—syphilis—it is not surprising that he got results when others failed. Many years ago, as an interne, I heard one medical philosopher and great teacher talk to his students, and, in order to impress them, he intentionally exaggerated: "The diseases that the human flesh is heir to can be roughly, and for practical purposes, divided into two large groups—syphilitis and nonsyphilitic, the former comprising 95 per cent of the whole. If you can diagnose and treat syphilis in its various manifestations, you need have no doubt as to your success."

Until a few years ago syphilis was a taboo subject, to be mentioned only in a whisper behind closed doors. Now, almost sixty years after Toland's death, this ever prevalent scourge is at last being brought out from under cover and considered rationally. The people are being given public lectures by the medical profession, warning them that syphilis is a menace to our civilization. Indeed, one cannot but reflect that "knowledge comes, but wisdom lingers." This national campaign should have been started in Toland's day. There can be no doubt that it was just this idea, the education of the public and, thereby, the consequent preservation of the health of the community, that induced Levi Cooper Lane—a later confrère of Toland's and also a great medical leader in his day, to whom San Francisco medicine is much indebted—to inaugurate a series of medical lectures to the public. But, as nearly always, this innovation was frowned upon by his colleagues, and Lane was the brunt of their caustic remarks. Verily, if one would avoid the criticism of his day he must not be ahead of his time. Small minds cannot see the mountain near. However, one should take consolation in the thought that discussion of one's contemporaries is conversation, not criticism.

A DOMINANT PERSONALITY

He was master in the power of suggestion and in inspiring great confidence in his patients by his dominating personality, and he is said to have wrought marvelous cures in his day. It is little wonder that he soon had the largest practice on the Pacific Coast. This did not arise from a desire to outstrip his competitors, but because of the combination of native ability, splendid training, and a rare personality. He seemed to have a place that no one else could fill. Those who knew him best have written of his manifold generosities and of his lavish donations to charity, which often amounted to $100 a week.

384 Post Street.

(To Be Continued)

CLINICAL NOTES AND CASE REPORTS

EOSINOPHILIC BODIES IN MEASLES

By H. H. PARSONS, M.D.*
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IT is generally accepted that the virus of measles exists in the blood, nasal secretion, and the bronchial secretion.[1,2]

Several organisms have been described as having been found in the blood[3] and nasal secretion.[4] Both Gram-negative and Gram-positive cocci have been described, but none of them have been accepted as the etiological factor in measles.

Degkwitz[5] claims to have cultivated the virus.

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1 Anderson and Goldberger: (a) J. A. M. A., Vol. 23, No. 57, pp. 476, 971, 1911. (b) Am. J. Dis. Child., 4:20, 1912.
2 Blake and Trask: J. Exper. Med., 33:385, 1921.
3 Tunnicliff: J. Inf. Dis., 37:193, 1925.
4 Guardabassi: Pediatria, 1927.
5 Degkwitz: J. Inf. Dis., 41:304, 1927.

No reference having been found of anyone having made a daily examination of the blood of any virus disease from its inception to far into the convalescence, the author decided to carry out such examinations. On November 7, 1934, a pre-eruptive case of measles became available for study.[6] The eruption appeared on November 8, 1934.

Smears were taken daily from the blood and nasal secretion, and from the conjunctival sac, from November 7 to 17 inclusive, when the taking of smears was interrupted.

The smears were stained with a modified Fontana silver stain, and minute bodies were found in some of the red blood cells, free in the mucus of the nasal secretion and free in the smears from the conjunctival sac.

Since then eleven other cases of measles have been similarly examined, blood smears being taken from the day of the appearance of the rash up to and including the eighteenth day, and all have shown eosinophilic bodies in the red blood cells.

After trying many staining methods, it was found that these bodies are eosinophilic, that aldehyds intensify the staining, and that prolonged staining is necessary.

Wright's, Giemaa's, and other such stains have proved useless, as have basic stains.

STAINING METHOD

From the above data the following method of staining was evolved:

1. Make very thin smears. Dry in air.
2. Flood smear with absolute methyl alcohol and stand slide on end and allow to dry.
3. Place in Coplin jar containing a solution made as follows: water 90 cc., formalin 10 cc., and allow to remain for twelve hours.
4. Transfer slide, without washing, into another Coplin jar containing: eosin .3 gm., formalin 10 cc., water 100 cc. Stain for twelve hours.
5. Wash in running water, then blot or dry slide in the air.

All solutions should be filtered.

No counterstain is used for blood smears, but it is advisable to use a counterstain if mucus, pus, or other materials are to be examined. All smears are stained first as above; then, to counterstain, place the slide in another Coplin jar containing China blue .3 gm., formalin 10 cc., water 100 cc. Stain for from thirty seconds to thirty minutes (it will vary), or stain until the slide takes on a pale blue color. Do not stain deeply, as this will hide the eosinophilic bodies. Mucus, pus, etc., stain pale blue, the bodies an eosin color. Normal controls should be run on each slide or set of slides.

Normal blood contains some eosinophilic bodies in some of the red blood cells, but they are not numerous nor uniform. They are usually large and occur in the proportion of about one body to every eighty red cells. They may possibly be protected bodies.[7]

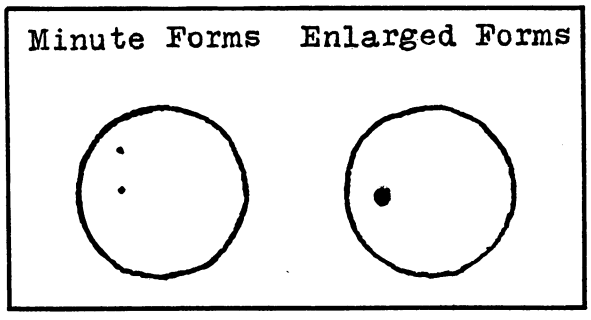

Fig. 1

BLOOD FINDINGS IN MEASLES

In measles blood the bodies are found in the red blood cells, rarely in a white cell or a platelet, or free in the plasma. They usually occupy the area between the periphery and the center of the red cell, and they generally occur in the proportion of one or two bodies to every sixth red cell. On the sixth to seventh day certain of these bodies seem to develop greatly in size, usually to about that of a coccus, and they make their maximum development from the ninth to the twelfth or fourteenth day. From the fourteenth to the seventeenth to eighteenth day they become pale, take the stain less readily, lose their outline, and by the eighteenth day have usually disappeared from the blood. They are eosinophilic, very refractile, both in the minute and larger forms, having a bright orange color. The red cells are stained a brilliant pink.

The color plate does not give an accurate conception of their appearance, as I have been unable to get the proper colors to show the refractility.

Both the minute and larger forms occur in the nasal mucus and in the smears from the lacrymal sac. However, it is not known how long they remain there.

Several cultural trials were made after the method of Goodpasture,[8] but the results were not conclusive.

There are certain points to be observed in examining these smears, chiefly to discard any slides that show large numbers of bubbles on the red cells, or slides that are not nearly perfect. Slides ground on one end on the flat are useless, as they are pitted all over from the abrasives used in grinding; these pits retain the stain and lead to endless confusion. Cells that are deformed, or that touch or overlap one another, should not be counted, as they often have bodies that lead to confusion. Unless one has had these bodies demonstrated to him, considerable difficulty will be experienced in identifying them.

Other eosinophilic bodies have been found in the blood of mumps, rubella, chicken-pox, poliomyelitis, arthritis, herpes influenza, the common cold—the descriptions of which I hope to publish.

I have termed these bodies "eosinia" for convenience.

These bodies were described and demonstrated before the Calhoun County Medical Society (Alabama) on November 5, 1935.

247 Jordan Street.

6 John Hogue

7 Raus, P., and Jones, F. S.: Jr. Exp. Med., 23:601-612, 1916.

8 Goodpasture, E. W., and Buddingh: Amer. Jour. Hygiene, Vol. 21, No. 2, 319-360, 1935.